Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matters of	)	
	)	
Implementation of the NET 911	)	
Improvement Act of 2008	)	**WC Docket No. 08-171**
	)	

COMMENTS OF NENA AND APCO

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The National Emergency Number Association ("NENA")[1] and the Association of Public-Safety Communications Officials-International ("APCO")[2] submit these initial comments in response to the Notice of Proposed Rulemaking, FCC 08-195, released August 25, 2008 ("NPRM"), in the above-captioned proceeding. The NPRM seeks comments concerning regulations implementing the requirements of the New and Emerging Technologies 911 Improvement Act of 2008 ("NET 911 Act")[3].

Summary

NENA and APCO believe that VoIP providers should be granted reasonable and non-discriminatory access to all capabilities that are necessary for the deployment of E9-1-1 services and such access should be provided at rates that are just, reasonable and non-

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1 NENA is The Voice of 9-1-1™. NENA promotes implementation and awareness of 9-1-1 as North America's universal emergency number. NENA is the leading professional non-profit organization dedicated solely to 9-1-1 emergency communications issues. NENA serves its nearly 7,000 members in 48 chapters across the U.S., Canada and Mexico through policy advocacy, establishment of technical and operational standards, certification programs and a broad spectrum of educational offerings. More information is available at www.nena.org.

2 The Association of Public-Safety Communications Officials (APCO) International is the world's oldest and largest professional organization dedicated to the enhancement of public safety communications. APCO International serves the professional needs of its 15,000 members worldwide by creating a platform for setting professional standards, addressing professional issues and providing education, products and services for people who manage, operate, maintain and supply the communications systems used by police, fire and emergency medical dispatch agencies throughout the world. More information is available at www.apcointl.org.

3 See NET 911 Act § 101(2), Pub. L. No. 110-283, 122 Stat. 2620, July 23, 2008.

discriminatory. Such access should be reasonably granted whether the entity that owns or operates the capabilities in question is a private or public entity. In return for such access, VoIP providers should commit to deploying fixed and nomadic VoIP service in accordance with national VoIP E9-1-1 standards, such as the NENA Interim VoIP Architecture for Enhanced 9-1-1 Services standard (known in short as "i2"). The i2 standard is designed to ensure that VoIP 9-1-1 calls are routed and presented in a wireline-equivalent manner.

The New Law

Specifically, the NET 911 Act requires IP-Enabled Service Providers[4] to comply with current and future FCC VoIP 9-1-1 and E9-1-1 regulations, and in doing so requires the Commission to issue regulations concerning the rights of interconnected VoIP providers to access the capabilities necessary to provide E9-1-1 service. Thus, the NPRM seeks comments on what capabilities are necessary for the provisioning of E9-1-1 service by interconnected VoIP providers and on what terms must access to such capabilities be given.

The NPRM also raises issues concerning the deployment of mobile VoIP services being offered by CMRS carriers in conjunction with their CMRS service. In particular, comments are sought on the capabilities that are necessary for a CMRS carrier offering mobile VoIP to provide E9-1-1 service in certain roaming environments.[5]

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[4] The term IP-Enabled Service Provider used in the NET 911 Act has the same meaning as an interconnected VoIP provider as defined in Section 9.5 of the Commission's rules. The terms are used interchangeably in this filing.

[5] NPRM at ¶ 7.

Overview

FCC rules, now codified by the NET 911 Act, appropriately require Interconnected VoIP providers to supply 9-1-1 and E9-1-1 services to their customers.[6] In order to comply with such requirements, it is essential that interconnected VoIP providers have access to all of the capabilities that are necessary to provide E9-1-1 service. Thus, NENA and APCO believe that VoIP providers should be granted reasonable and non-discriminatory access to all capabilities that are necessary for the deployment of E9-1-1 services and such access should be provided at rates that are just, reasonable and non-discriminatory. Such access should be reasonably granted whether the entity that owns or operates the capabilities in question is a private or public entity. In return for such access, VoIP providers should commit to deploying fixed and nomadic VoIP service in accordance with national VoIP E9-1-1 standards, such as the NENA Interim VoIP Architecture for Enhanced 9-1-1 Services standard (known in short as "i2"). The i2 standard is designed to ensure that VoIP 9-1-1 calls are routed and presented in a wireline equivalent manner.[7]

E9-1-1 capabilities for VoIP providers will necessarily include interconnection with the dedicated "wireline E9-1-1 network" since the FCC's wireless and VoIP E9-1-1 rules require calls to be delivered to the appropriate Public Safety Answering Point ("PSAP") via the wireline E9-1-1 network.[8] Thus, the Commission should define the core capabilities that are necessary for the provision of E9-1-1 service and for which access should be

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[6] 47 C.F.R. § 9.5.

[7] See 08-001 NENA Interim VoIP Architecture for Enhanced 9-1-1 Services (i2). Available at http://www.nena.org/media/File/08-001_20051205.pdf.

[8] 47 C.F.R § 9.3 defines the Wireline E911 Network as ""A dedicated wireline network that: (1) is interconnected with but largely separate from the pubic switched telephone network; (2) includes a selective router; and (3) is utilized to route emergency calls and related information to PSAPs, designated statewide default answering points, appropriate local emergency authorities or other emergency answering points.

granted. While it is important to clarify what those capabilities are for the E9-1-1 system as it is currently constituted, any rules adopted must take into account that significant work is underway to transition the current E9-1-1 system to an IP-based Next Generation 9-1-1 ("NG9-1-1) system.[9] NG9-1-1 is not simply an extension of E9-1-1. While a full NG9-1-1 system must support all E9-1-1 functions and features, NG9-1-1 is IP-based, software and database-controlled in fundamentally new ways, enabling many new technical and operational capabilities to further enhance the coordination and delivery of emergency services nationwide. Additionally, NG9-1-1 will not be a flash cut. There will be areas that remain tied to the legacy E9-1-1 system for quite some time that must be able to interoperate with areas that have migrated to NG9-1-1. Unique interconnection issues may arise in this context.

Thus, while the Commission may be currently focused on those capabilities necessary for interconnection with the current E9-1-1 system, there needs to be an understanding of the capabilities involved with NG9-1-1, which in many instances will enable the same (and more) functions of the E9-1-1 system in the form of different "capabilities". Therefore, the Commission should clarify that in areas of the country that deploy NG9-1-1 systems, interconnected VoIP providers (and other communications service providers) may connect to NG9-1-1 systems where the functions required by the current E9-1-1 rules can be met. Additionally, where possible, the rules adopted as a result of this NPRM requiring reasonable access to components necessary for interconnection with the E9-1-1 system also must apply to capabilities necessary for interconnection with the NG9-1-1 system.

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9 For more information on NG9-1-1 see http://www.nena.org/pages/ContentList.asp?CTID=65 and http://www.its.dot.gov/ng911/index.htm.

Capabilities

NENA and APCO agree that the following capabilities are necessary to provide E9-1-1 service: access to pseudo Automatic Number Identification ("p-ANI"), real-time access to Automatic Location Identification (ALI) database servers with dynamic data update capability, Emergency Service Number (ESN) assignment information, Master Street Address Guide (MSAG) records access, shell records, and selective router interconnection.[10] We do not comment at this time as to what rates, terms and conditions should be afforded to interconnected VoIP providers to access such capabilities.

Access to pANIs

NENA and APCO are aware that there are varying opinions as to whether or not pANIs should be provided directly to VoIP service providers. Vonage suggests in an ex parte, submitted July 10, 2008, that VoIP providers should be directly assigned pANIs.[11] Previous statements by some companies serving as VoIP Positioning Centers ("VPCs") have suggested that numbers should not be provided to VoIP providers unless they are certified telecommunications carriers and that pANIs are better provided to VPCs who can provide access to pANIs for the VoIP companies that they serve.[12] Finally, we are aware of at least one 9-1-1 governing authority that suggests pANIs should be available only to providers of

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[10] A convenient glossary of terms is contained in the NENA Master Glossary of 9-1-1 Terminology available at http://www.nena.org/media/File/NENA00-001_V1120080516.pdf.

[11] See letter from Ronald W. Del Sestro, Jr., Counsel for Vonage, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 04-36, 05-196, Attach A at 1-2 (filed July 11, 2008) ("Vonage letter").

[12] See Comments of Intrado Regarding the Petition of Telecommunications Systems, Inc. and HBF Group For Waiver, CC Docket No. 99-200 (March 1, 2007).

VPC services.[13] While recognizing the essential need for pANIs in the provision of VoIP E9-1-1 service, at this time, NENA and APCO do not offer support for one approach over another. We look forward to reviewing comments on this issue.

Regardless of whether or not pANIs are directly provided to VoIP providers, the FCC must make clear that there is a difference in the purpose and the service effects of pANIs provisioned for wireless E9-1-1 (in the form of Emergency Service Routing Keys, or ESRKs) and for the provisioning of VoIP E9-1-1 service (in the form of Emergency Service Query Keys, or ESQKs). Based on NENA standards, the same pANIs should not be used as both ESRKs for wireless E9-1-1 and ESQKs for VoIP E9-1-1 service. Allowing pANIs to be used interchangeably as ESRKs and ESQKs is contrary to the intent of the NENA i2 standard which seeks to ensure that fixed and nomadic VoIP services effectively function as a wireline equivalent service.[14]

Access to MSAG Records

NENA and APCO wish to reiterate the importance of MSAG-valid addresses in the provisioning of E9-1-1 service. Ensuring that the PSAP is provided an accurate and unambiguous location of an emergency is critical to the functioning of the E9-1-1 system. For the E9-1-1 system to work properly from end to end, any address registered by the subscriber must be validated against the MSAG, an ESN must be identified for routing, and the MSAG-valid address must be transmitted to the PSAP. MSAG validation must be applied to all VoIP fixed and nomadic (non-wireless) subscriber records in preparation for

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[13] See letter from Bill Munn, Chairman, Texas 9-1-1 Alliance, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-196 (November 23, 2005).

[14] See 08-001 NENA Interim VoIP Architecture for Enhanced 9-1-1 Services (i2) at pg. 14: "civic location is required for non-wireless fixed and nomadic types of service, with geodetic location optionally sent as supplemental information in addition to the civic location for these service types. Civic location presented to the PSAP is expected to be MSAG validated."

9-1-1 calling, equivalent to wireline treatment as described in the NENA i2 standard. The Commission should make clear that MSAG address validation is required. VoIP service providers, or their third party vendors, must have access to the MSAG data to effectively provide E9-1-1 service.[15]

More specifically, VoIP providers should have access to a copy of MSAG data with periodic updates provided so that VoIP customer address validation can be done on the front end before any 9-1-1 calls are initiated. The NENA i2 approach to this is a Validation Data Base (VDB) that allows public safety entities to manage and publish MSAG and related data to authenticated users. VoIP providers should receive the same access and treatment afforded to CLECs today for MSAG data.

Regarding what is considered "reasonable" access to any of the capabilities described above, the Commission should make clear that access to the E9-1-1 system must involve existing 9-1-1 governing authorities using existing procedures where they have been established. Just as companies that own aspects of the E9-1-1 infrastructure must provide reasonable access to capabilities, the processes established by 9-1-1 governing authorities granting access to the E9-1-1 system must be reasonable, but it should be made clear than any access to the E9-1-1 system sought by interconnected VoIP providers must be done in accordance with the procedures established by 9-1-1 governing authorities.

Delegation to State Public Utility Commissions and 9-1-1 Programs

The Commission should define the capabilities to which interconnected VoIP providers must be given reasonable access as clearly as possible, but the Commission will need to reserve the right to address unspecified or unanticipated situations on a case by

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[15] See Joint Petition for Clarification of the National Emergency Number Association and the Voice on the Net (VON) Coalition, WC Docket Nos. 04-36, 05-196 at 5 (filed Jul7 29, 2005).

case basis. This is largely because the 9-1-1 system is operated in different ways depending on the service providers and 9-1-1 authorities involved. The Commission must therefore establish a clear, effective dispute resolution process that ensures fair and prompt settlement of issues. While disputes may be largely fact-specific, any dispute resolution process should be open with an opportunity for third parties to comment, including 9-1-1 governing authorities, with Commission decisions applying industry-wide wherever possible.

It is important that the Commission appreciate and recognize the traditional role that state public utility commissions have played in the interconnection process generally and concerning 9-1-1 issues. The Commission has consistently recognized that the 9-1-1 system is largely a state and local government responsibility. To the extent that the Commission can establish national guidelines regarding access to the capabilities necessary to provide E9-1-1 service, there is an appropriate role for state public utility commissions, working in conjunction with state and local 9-1-1 governing authorities as appropriate, to address implementation disputes based on such national guidelines.

Mobile VoIP; Dual-mode CMRS/Wi-Fi Services

The NPRM raises issues concerning mobile VoIP services offered or used by CMRS carriers and specifically asks what requirements should be imposed on mobile VoIP providers and their roaming partners when offering mobile VoIP service in a roaming area outside its CMRS footprint. As NENA and APCO have previously stated[16], we agree that for those individual mobile VoIP E9-1-1 solutions that sometimes depend on the last

16 See letter from Robert M. Gurss, Director, Legal and Government Affairs for APCO, and Brian Fontes, CEO for NENA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 04-36, 05-196 (filed August 19, 2008).

known cell location of a caller in roaming situations, there would be public safety benefits for roaming partners to be able to route 9-1-1 calls based on the last known cell location of a caller. In that regard, we look forward to hearing from other commenting parties regarding that approach.

However, to our knowledge, this issue only applies at present to T-Mobile's dual-mode CMRS/Wi-Fi solution. It is unclear whether and how the specific roaming issue raised in the NPRM would apply to other carriers who might apply variations of a dual-mode service. Thus, we look forward to reviewing the comments of other parties on this subject.

NENA and APCO understand the Commission's desire to address the specific issue raised in the NPRM. We also wish to point out that there are other and potentially wider issues beyond those raised in the NPRM that affect the interface of dual-mode CMRS/Wi-Fi services to the E9-1-1 system. For example, with the dual/mode solution offered by T-Mobile, when a Wi-Fi call is made it typically relies on a T-Mobile access point either in a customer's home or business or in a known T-Mobile hotspot. The caller may be mobile in one sense, because the device is wireless, but at the same time T-Mobile knows the registered location associated with the access point at the call location.

It may be sufficient to route the call utilizing the GSM wireless E9-1-1 solution, but since T-Mobile knows the actual registered address of the caller, it may also be able to provide the registered address of the caller. The address could be compared against the x-y coordinates and a determination could be made that the call is indeed coming from the registered address which is inherently more accurate than a geodetic location. This example is not offered as a singular solution, but as an illustration of the broader range of

9-1-1 issues that still need to be addressed for these new services. Thus, the Commission should consider addressing the broader set of issues in a separate proceeding focused on mobile VoIP services.

As these mobile VoIP issues are considered, NENA and APCO wish to raise an important and fundamental point. Geodetic solutions (latitude and longitude) designed to provide location data for mobile services are insufficient for fixed/nomadic (non-wireless) VoIP 9-1-1 calls and would amount generally to a degradation of service as compared to existing fixed wireline E9-1-1 service based on civic addressing. Providing the latitude and longitude of a fixed/nomadic (non-wireless) VoIP 9-1-1 call or provisioning such calls with a wireless class of service despite its nomadic VoIP nature, is not the same level of service that citizens have come to expect when making 9-1-1 calls from a fixed location. Only when the caller is truly mobile does it makes sense to rely on the traditional wireless E9-1-1 solutions. Even then, simply because solutions for one type of mobile service (e.g. CMRS), and the regulations accompanying such services, have been implemented, it does not necessarily follow that existing solutions and regulations should automatically apply to all mobile communications services.

Other

VoIP Provider Registration

The Commission asks whether IP-Enabled voice service providers should register with the Commission and establish a point of contact for public safety and government

officials relative to 9-1-1 and E9-1-1 service and access.[17] While the Commission seeks comment on this issue, it appears that the plain language of the NET 911 Improvement Act directs the Commission to require such registration.[18] NENA and APCO agree that it would be useful to require VoIP providers to register with the Commission to establish a list of known VoIP companies and contact information for those companies. If a problem arises during a call and it becomes necessary to contact the provider involved, it would be helpful to know that the FCC maintains an easily accessed list of VoIP providers with 24 x 7 contact information.

Selective Router Database

In its July 10th ex parte letter, Vonage suggests that "there is no comprehensive list of selective routers in the country" and that VoIP providers "need access to a comprehensive list of all of the selective routers in the United States and a corresponding list of which PSAPs are connected to which selective routers"[19]. While the NPRM does not specifically address this issue, it should be pointed out that NENA does in fact maintain such lists in the form of a "9-1-1 System Reference Guide."[20]

Competitive E9-1-1 Service Interconnection Issues

This NPRM is focused on the issue of interconnection to the E9-1-1 system for VoIP providers who are originating service providers offering a service for the benefit of

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[17] NPRM at ¶ 11.

[18] NET 911 Improvement Act § 101(2), adding a new section 6(c)(2) to the Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286 (47 U.S.C. 615b) which states that the Commission "shall require IP-enabled voice service providers to which the regulations apply to register with the Commission and establish a point of contact for public safety and government officials relative to 9-1-1 and enhanced 9-1-1 service and access".

[19] Vonage letter at 5.

[20] Information on the NENA 9-1-1 System Reference Guide is available at http://www.nena.org/pages/Content.asp?CID=262&CTID=40.

end user consumers. While this is an appropriate focus for this NPRM, there are currently several ongoing regulatory proceedings in the states that concern the issue of competitive E9-1-1 service offerings involving new entrants seeking to play the role of the 9-1-1 System Service Provider, a function traditionally left to the incumbent local exchange carrier ("ILEC"). As competitive E9-1-1 service offerings begin to emerge, for current E9-1-1 functions and as a catalyst to enable the transition to NG9-1-1, interconnection issues will arise between competing companies that must effectively work together to enable E9-1-1 service for the areas they serve. This NPRM is likely not the right venue to address these issues, but the results of this proceeding could provide valuable insight to the extent interconnection issues between competing providers are raised before the Commission.

Coordination with the E9-1-1 Implementation and Coordination Office (ICO)

Finally, as the Commission considers the issues raised in these and other comments in this proceeding, NENA and APCO encourage the FCC to coordinate activities with the National E9-1-1 Implementation and Coordination Office (ICO) where appropriate.[21] For example, the NET 911 Act requires the ICO to produce a report to Congress on the migration to an IP-enabled emergency network addressing, among other things, automatic location technology for enhanced 9-1-1 services and legislative changes that are necessary to facilitate a national IP-enabled emergency network.[22] Close coordination between the FCC and the ICO will help to ensure the implementation of the most effective and efficient 9-1-1 system for all consumers.

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[21] The E9-1-1 Implementation and Coordination Office (ICO) is a joint office of the National Highway Traffic Safety Administration (NHTSA) within the Department of Transportation and the National Telecommunications and Information Administration (NTIA) within the Department of Commerce. ENHANCE 911 Act of 2004, § 104, Pub. L. No. 108-494, 118 Stat 3986.

[22] NET 911 Improvement Act § 102.

Conclusion

For the reasons discussed above, the Commission should adopt rules ensuring the access discussed under "Capabilities" above, and recognize the important roles that can be played by state and local authorities in dispute resolution. With regard to mobile VOIP services, such as dual-mode CMRS/Wi-Fi offerings, as well as evolving competition by new entities seeking to fill some or all of the roles traditionally played by LECs, separate or follow-up proceedings may be warranted. Collaboration with the new E9-1-1 Implementation and Coordination Office is important in order for the ICO to meet its Congressionally-assigned responsibilities.

Respectfully submitted,

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